

FOREST STEWARDSHIP MANAGEMENT PLAN

Prepared For: Attala County Schools BOE

Prepared By: James Wade McCulloch Ms. Forestry Commission

Time Period Covered by This Plan: 2012 - 2021

Date Plan Prepared: 2012-02-21

Plan Type: Stewardship / Stewardship

This plan was developed in accordance with the rules of the Stewardship program.

Property Name: Munson Crossing Section 16-14-8

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LANDOWNER INFORMATION

Name: Attala County Schools BOE

Mailing Address: 100 Courthouse Bldg.

Suite 3

City, State, Zip: Kosciusko, MS 39090 Country: United States of America

Contact Numbers: Home Number:

Office Number: 662-289-2801

Fax Number:

E-mail Address:

Social Security Number (optional):

FORESTER INFORMATION

Name: James Wade McCulloch, Attala Co. Service Forester

Forester Number: 02329

Organization: Ms. Forestry Commission

Street Address: P.O. Box 576

City, State, Zip: Kosicusko, MS 39090

Contact Numbers: Office Number: 662-289-6803

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PROPERTY LOCATION

County: Attala Total Acres: 662 Latitude: -89.48 Longitude: 33.07

Section: 16 Township: 14N Range: 8E

DISCLAIMER

This information was derived from a small sampling of the forest resources. It reflects a statistical estimation that is only intended to be accurate enough for the purpose of making decisions for the short-term management of these resources. These estimations are temporally static Events and circumstances may occur within the survey area that will physically alter the forest resources and therefore will not be reflected in this plan.

INTRODUCTION

This Forest Stewardship Management Plan will serve as a guide for accomplishing the goals and objectives for your property. In addition to addressing your specific goals and objectives, this plan includes recommendations for maintaining soil and water quality and protecting your forest from insects, disease, and wildfire. Recommendations are based on observation and assessment of the site.

OBJECTIVES

Fire Protection

The goal is to protect the resource from wildfires, by establishing and maintaining firebreaks around the property; annually inspect possible signs of insect infestations and disease; and prohibit grazing until terminal bud is beyond reach of livestock.

Timber Production

The goal is to produce high quality sawtimber. This will be accomplished through reforestation and timber stand improvement practices such as herbicide applications, prescribed burning, thinning at specified intervals, and other silvicultural practices. Forestry Best Management Practices will be implemented to prevent erosion and protect water quality.

Wildlife Management - General

The goal is to provide a diversity of habitats suitable for a variety of game and non-game wildlife species. Habitat management will focus on developing a variety of food, cover, water, and space. This will be accomplished by establishing and maintaining access roads and firelanes, providing openings within the forest, and the management of trees located within the Streamside Management Zone.

PROPERTY DESCRIPTION

General Property Information

There are approximately 201 non-forested acres in this section, including roads powerlines and leases that prohibit proper forestry activity. Access to and on the section is by way of Attala Road 5213. Soils on this section are best suited for Loblolly Pine production.

Archeological or Cultural Resources:

No Archeological or Cultural resources were identified during a reconnaissance of the property. However, if Archeological or Cultural resources are discovered anytime on the property special managements measures will be applied immediately in order preserve these sensitive areas.

Water Resources

No perennial water resources were identified during a reconnaissance of the property. However, intermittent streams and drains identified will be managed in accordance with Mississippi's Best Management Practices.

Timber Production

The goal is to maximize the production of high quality timber. This will be accomplished through the application of timely thinning and other silvicultural practices designed to enhance timber quality and growth. Forestry Best Management Practices will be implemented to prevent erosion and protect water quality.

Threatened and Endangered Species

No threatened and endangered species were identified during the reconnaissance and evaluation of your property.

Interaction with Surrounding Property

Prescribed practices should be carried out in a manner that will minimize adverse impacts on surrounding properties. Consideration should be given to potential air, water, visual, and other impacts. In addition, practices carried out should have positive effects on the surrounding community such as improved wildlife habitat and soil stabilization.

Soils General

Soils were evaluated on the property to determine the suitability of the site for the proposed activities. Forest practices were planned so as to minimize erosion or other adverse effects on the soil. The following soils are identified for this property:

SOIL TYPES

44C2

The Providence component makes up 90 percent of the map unit. Slopes are 5 to 8 percent. This component is on uplands. The parent material consists of silty loess over sandy marine deposits. Depth to a root restrictive layer, fragipan, is 18 to 38 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 18 inches during January, February, March. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. Loblolly Site Index = 87. Longleaf Site Index = 73.

4

The Kirkville component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains. The parent material consists of loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February, March, April. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria. Loblolly Site Index = 95.

8

The Kinston component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains. The parent material consists of loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, May, June, November, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 6w. This soil meets hydric criteria. Loblolly Site Index = 100.

60F2

The Smithdale component makes up 50 percent of the map unit. Slopes are 15 to 35 percent. This component is on hillslopes. The parent material consists of loamy fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. The Sweatman component makes up 35 percent of the map unit. Slopes are 15 to 35 percent. This component is on uplands. The parent material consists of loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria.

53C2

The Sweatman component makes up 90 percent of the map unit. Slopes are 5 to 8 percent. This component is on uplands. The parent material consists of loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria. Loblolly Site Index = 80.

GENERAL PROPERTY RECOMMENDATIONS

Forest Protection

A healthy vigorously growing stand is the best defense to an attack from a variety of forest insects, plants and pathogens.

Insects and Diseases

Trees are subject to attack from insects and diseases. Different insects and diseases affect trees according to the age, species, and condition of the trees. Planted stands of pines and pure stands of hardwoods are particularly susceptible to attack. Since there are many different insects and diseases, no attempt will be made here to explain all of them. The property should be inspected at least annually for possible signs of insect and disease activity. Some things to look for are:

- Unseasonable leaf fall
- Discoloration of leaves or needles
- Pitch pockets on pine trees
- · Heavy defoliation of hardwood leaves
- Groups of three or more dying trees within a stand

This list does not cover all instances of insect or disease attacks. If anything unusual is noticed, report it to a forester. In most cases, insect and disease problems can be controlled if discovered early.

Fire Protection

Your forest should be protected from wildfire at all times. The best way to protect your investment is by establishing and maintaining firebreaks around the property. Guidelines for establishment and maintenance of firebreaks may be found in Mississippi Forestry Commission publication #107, *Mississippi's Best Management Practices*.

Grazing

Tree seedlings should be protected from grazing until such time as the terminal bud of the sapling is beyond reach of livestock. Domestic livestock should be denied access to the tree planting area.

Boundary Lines

It is the responsibility of the landowner to ensure that all property lines and boundaries designating areas to receive forestry work are clearly identified and visible to all contractors.

Note: Some forest practices may cause temporary adverse environmental or aesthetic impacts. These practices will only cause short-term adverse impacts where they are installed. Special efforts will be made to minimize adverse effects when carrying out any of the practices. Examples include: site preparation, planting, prescribed fires, firebreak installation and maintenance, road installation and maintenance, pesticide applications and timber harvesting.

Water Quality Protection

The objective of the landowner is to protect, preserve and enhance all water sources on or transecting the property. This can best be achieved by implementation of Best Management Practices in all aspects of the management of the property.

Aesthetics

The goal is to assure that the property is managed in such a way that is aesthetically pleasing to the landowner as well as the community. Activities could include, maintaining buffer strips along the road and adjacent to the home site, planting wildflowers along the road, and trees with attractive fall and spring color along the drive and near the home site.

Ecological Restoration

Ecological restoration is the process of assisting the recovery of an ecosystem that has be degraded, damaged, or destroyed. A reconnaissance of the property has been conducted and no ecological restoration activities are recommended at this time.

Wildlife Mgt. Target Species

The objective of this practice is to provide habitat best suited for the featured or target species. Habitat management will focus on providing food, cover, water, and space to facilitate the target species.

Environmental Education

Environmental educational goals are to provide educational opportunities for children and adults through the development of items such as nature trails with tree identification markers, wildlife viewing areas, picnic areas, parking, public restroom facilities.

Wildlife Management General

The goal is to provide a diversity of habitats suited for a variety of game and non-game wildlife species. Habitat management will focus on providing a variety of food, cover, water, and space. This will be accomplished, in part, by establishing and maintaining access roads and firelanes, providing openings within the forest, and leaving mast producing and den trees.

Timber Management

Timber management goals for this property are to manage timber resources in such a manner as to maximize timber production throughout the life of the stand.

Recreation

According to landowner objectives the recreational use of the property could prove to be an avenue for personal enjoyment or for generating income. An evaluation of your property should be conducted and a plan developed to accomplish your specific goals for recreational activities on your property.

STRATA

Strata 1

Strata Description

Stands: 9,12,17,18,21,29,35,39,43,45,46

Acres: 361

This area consists of natural mixed hardwood and pine sawtimber stands established in ~1948. There are 115 pine trees per acre with 82 square feet of basal area per acre and 119 hardwood trees per acre with 47 square feet of basal per acre in this stand.

Strata Recommendations

These stands are a mixed stand of pine and hardwood that is reaching a mature level. Biologically, this timber should be harvested within the next few years. Economically, the stand should not be harvested until stumpage prices increase. After harvesting, site preparations should be completed and then the area should be planted back with loblolly pine seedlings.

Activity Recommendations

Harvest

A final harvest should be carried out on stand 39 in 2013. Also, a final harvest should be done on all other stands in strata one in 2015. Follow when practical with reforestation to convert to Loblolly Pine.

Strata 2

Strata Description Stands: 40,47

Acres: 100

This area has recently been harvested of all merchantable timber.

Strata Recommendations

This stand should be site prep sprayed, burned, and then planted with loblolly pine seedlings at a rate of 691 seedlings per acre.

Activity Recommendations

Site Preparation

Site preparation in the form of aerial chemical application is recommended for this stand.

Site Preparation

Site preparation in the form of burning by hand is recommended for this stand.

Regeneration

Planting - Following site preparation, the area should be planted with genetically improved loblolly pine. Seedlings will be planted at a rate of 691 trees per acre at a spacing of 7x9 feet. A deviation from the recommended planting rates will be limited to plus or minus 50 trees per acre. Planting should be done between December and March. Adverse weather conditions such as prolonged dry or cold periods should be taken into consideaation when planting.

OTHER PLAN ACTIVITIES

Boundary Lines

Line Description

These are the outside boundary lines of Sec.16-T14N-R8E.

Line Recommendations

The boundary lines need permanent lines pushed around them and the boundary trees need to be marked in paint every six years.

Activity Recommendations

Property Activities

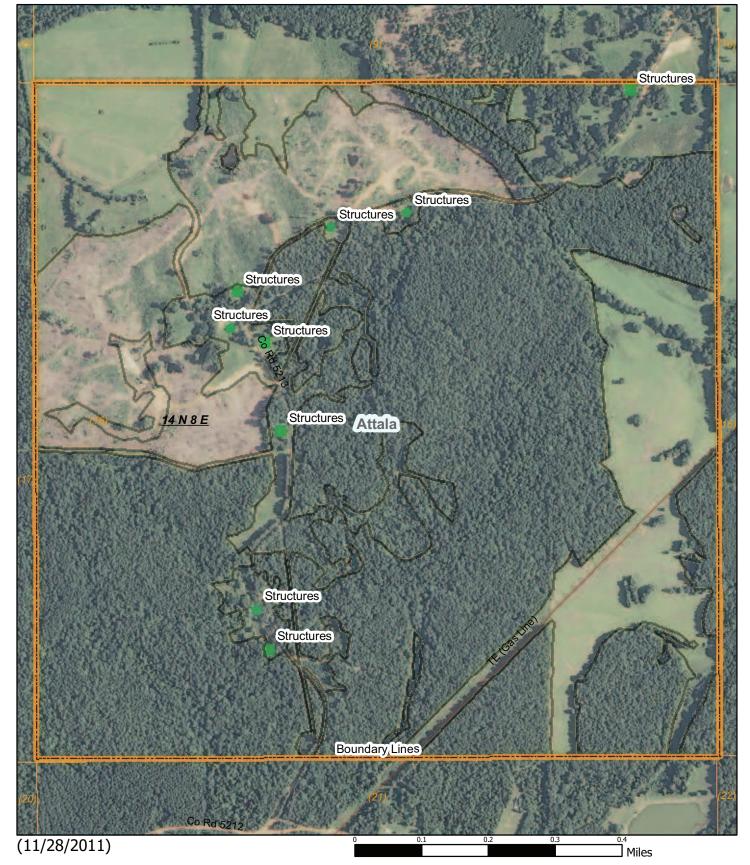
Routine inspections and general maintenance of the roads, Firelanes, and boundary lines will ensure overall appearance and aesthetics of the property. The boundary lines will need to be painted in 2016.



Attala Co. BOE - Munson Crossing Section

S16 T14N R8E 2012 to 2021 661.61 Acres



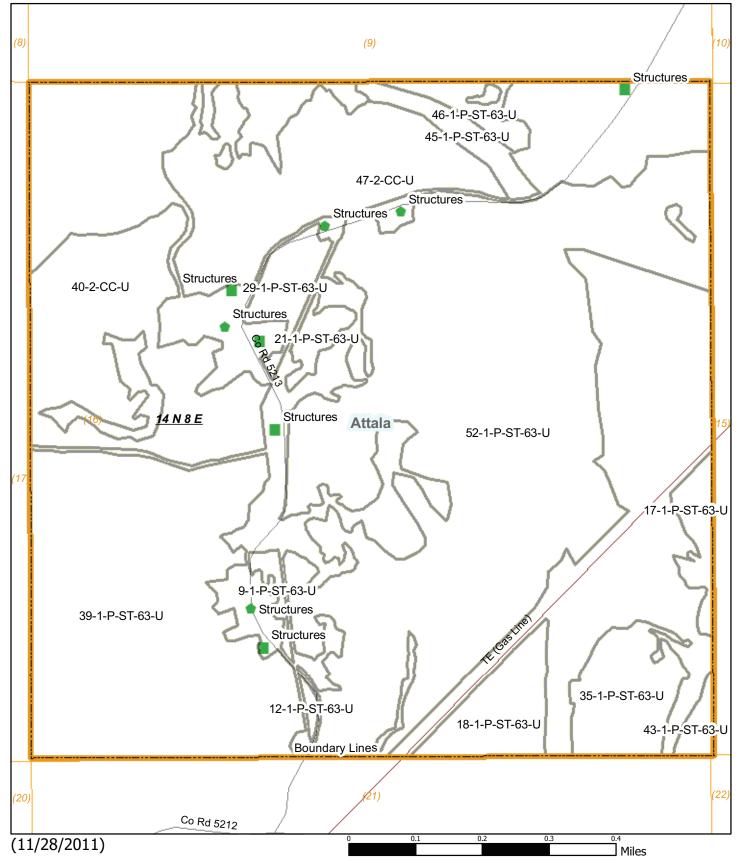


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Attala Co. BOE - Munson Crossing Section

S16 T14N R8E 2012 to 2021 661.61 Acres





Plan::0045_00015_28007_05022008105148 Munson Crossing Section

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Property	Boundary Corners	Boundary Lines (cont)	School Land Classification
Property	× Property	Forest Health	Forest Land
Category 1: Stands	X SectionX Quarter Section	Invasive Species	Farm/Residential Land Residential Land
Clear Cut	X Areas	Management CompartmentMilitary Area	Agricultural Land
Non-Stocked	Aicas	Natural Area	Industrial Land
Reproduction	Structures	Property	Recreational Land
Sub-Merchantable	Barn	Recreation	Catfish Farming Land
Pulpwood	Tractor Shed	Rights of Way	Other Land
Chip-n-Saw	Out Building	∑ sMz	Commercial Land
Sawtimber	Single-Family	Special Use	
Poles	Multi-Family	Stand	Management Compartment
	Camp House	Surface Mining	Management
Category 2: Stands	Club House	Threatened/Endangered Specie	
Clear Cut	Office Building	∑ Visual Buffer	Site Preparation
Non-Stocked	Manufacturing	Fire Control	Post Plant
Reproduction	WarehouseChicken House		Site Improvement
✓ Sub-Merchantable ✓ Pulpwood	Chicken HouseHorse Stall	Temporary Line Permanent Fire Break	Vegetation Control
PulpwoodChip-n-Saw	Milking Parlor	Permanent Fire break	Stand Improvement Invasive Species Control
Sawtimber	Hog Pen	Wildlife (Lines)	Harvest
Poles	Blind	Green Strip	Fire Protection
T GICS	Stand	arcen outp	Technical
Category 3: Non-Forest Stands	H Hospital	Fire	Wildlife Management
Non-Forest	H Nursing Home	Mitigation Burn	Property Activities
_	H Dr. Clinic	Silviculture Burn	Roads
Category 4: Not in Plan Stands	H State Facility	Site-Prep Burn	SMZ
✓ Not in Plan	Office	Wildfire	Forest Health
	Work Center		Recreation
Category 5: Features Only Plan Stand		School Land Lease	Site Restoration
Features Only Plan	Prison	Hunting	T (1:)
Doctorista d Citas	School	Minerals	Transportation (Lines)
Restricted Sites	Church The Management of the Control o	Recreation	City Streets
× Archeology	Mosque	Restricted Area	County Roads
+ Cemetery▲ Red-Cockaded Woodpecker	SynagogueOther	SMZ	3 Digit Highway Interstate Highway
▲ Gopher Tortoise	- Oulei	Archeology,	US Highway
▲ Picture Bogg Plant	Cruise Plots	Cemetery	State Highway
Trecare bogg Franc	Pre-Cruise	Visual Buffer	Natchez Trace Parkway
Forest Health (Points)	Post-Cruise	Special Use	Runways/Airports
★ Cogan Grass		Natural Area	Active RR
₩ Kudzu	Other	Education	Abandoned RR
Japanese Climbing Fern	Towers	Recreation	·
* Chinese Tallow	Logging Deck	Military Area	Hydrology (Lines)
* Privet	Locked	Large Utility	Mississippi River
▲ Southern Pine Beetle	UnLocked	Red-Cockaded Woodpecker	Major River
▲ Sirex Wasp	Water	Gopher Tortoise	Primary Stream
▲ IPPS	Oil	Picture Bogg Plant	Intermittent Stream
Hydrology (Points)	Natural Gas	Cravel	Canal Ditch
Concrete Dam	Property Roads/Trails	Gravel Dirt	Earthen Dam
Beaver Dam	Drive Ways	Water	Concrete Dam
Earthen Dam	Access Road	Oil	Concrete bann
Permanent	Logging Road	Natural Gas	Utilities (Lines)
Temporary	Skid Trail		Large Electrical
Wooden	Farm Road	Forest Health (Polygons)	Local Utility
Other	Hiking Trail	Cogan Grass	Large Pipeline
	Horseback Riding Trail	Kudzu	Small Pipeline
Pond		Japanese Climbing Fern	Gas Line
WELLING (D. 1.1.)	Boundary Lines	Chinese Tallow	Utility Line
Wildlife (Points)	Archeology	Privet	Water Line
Food Plot	Cemetery	Southern Pine Beetle	
Water Hole	Drilling Sites	Sirex Wasp IPPS	
Feeder	Education	ILL2	

Stand Activity Schedule for Attala County Schools BOE 16 14N 8E

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
2012					
2	40	Site Preparation, Other, Burn, Hand, Cut-Over	51	\$1,778.00	\$0.00
2	40	Regeneration, Artificial, Plant, Hand, Loblolly	51	\$4,318.00	\$0.00
2	40	Site Preparation, Chemical, Broadcast, Aerial, Combination	51	\$4,064.00	\$0.00
2	47	Site Preparation, Chemical, Broadcast, Aerial, Combination	49	\$3,920.00	\$0.00
2	47	Site Preparation, Other, Burn, Hand, Cut-Over	49	\$1,730.75	\$0.00
2	47	Regeneration, Artificial, Plant, Hand, Loblolly	49	\$4,203.25	\$0.00
		Yearly Totals	300	\$20.014.00	\$0.00
2013					
1	39	Harvest, Mechanical, Final, Machine, Loblolly	99	\$3,465.00	\$182,655.00
		Yearly Totals	99	\$3,465.00	\$182.655.00
2014					
1	39	Regeneration, Artificial, Plant, Hand, Loblolly	99	\$8,415.00	\$0.00
1	39	Site Preparation, Chemical, Broadcast, Aerial, Combination	99	\$8,910.00	\$0.00
1	39	Site Preparation, Other, Burn, Hand, Cut-Over	99	\$2,475.00	\$0.00
		Yearly Totals	297	\$19.800.00	\$0.00
2015					
1	9	Harvest, Mechanical, Final, Machine, Loblolly	2	\$76.30	\$4,022.10
1	12	Harvest, Mechanical, Final, Machine, Loblolly	1	\$29.75	\$1,568.25
1	17	Harvest, Mechanical, Final, Machine, Loblolly	6	\$224.35	\$11,826.45
1	18	Harvest, Mechanical, Final, Machine, Loblolly	14	\$477.40	\$25,165.80

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
1	21	Harvest, Mechanical, Final, Machine, Loblolly		\$136.50	\$7,195.50
1	29	Harvest, Mechanical, Final, Machine, Loblolly		\$271.95	\$14,335.65
1	35	Harvest, Mechanical, Final, Machine, Loblolly	17	\$599.90	\$31,623.30
1	43	Harvest, Mechanical, Final, Machine, Loblolly	3	\$100.80	\$5,313.60
1	45	Harvest, Mechanical, Final, Machine, Loblolly	7	\$236.95	\$12,490.65
1	46	Harvest, Mechanical, Final, Machine, Loblolly	5	\$186.55	\$9,833.85
1	52	Harvest, Mechanical, Final, Machine, Loblolly	194	\$6,790.00	\$357,930.00
		Yearly Totals	261	\$9.130.45	\$481.305.15
2016					
1	9	Site Preparation, Chemical, Broadcast, Aerial, Combination	2	\$196.20	\$0.00
1	9	Regeneration, Artificial, Plant, Hand, Loblolly	2	\$185.30	\$0.00
1	9	Site Preparation, Other, Burn, Hand, Cut-Over	2	\$54.50	\$0.00
1	12	Site Preparation, Chemical, Broadcast, Aerial, Combination	1	\$76.50	\$0.00
1	12	Site Preparation, Other, Burn, Hand, Cut-Over	1	\$21.25	\$0.00
1	12	Regeneration, Artificial, Plant, Hand, Loblolly	1	\$72.25	\$0.00
1	17	Site Preparation, Chemical, Broadcast, Aerial, Combination	6	\$576.90	\$0.00
1	17	Site Preparation, Other, Burn, Hand, Cut-Over	6	\$160.25	\$0.00
1	17	Regeneration, Artificial, Plant, Hand, Loblolly	6	\$544.85	\$0.00
1	18	Site Preparation, Chemical, Broadcast, Aerial, Combination	14	\$1,227.60	\$0.00
1	18	Regeneration, Artificial, Plant, Hand, Loblolly		\$1,159.40	\$0.00
1	18	Site Preparation, Other, Burn, Hand, Cut-Over	14	\$341.00	\$0.00
1	21	Site Preparation, Chemical, Broadcast, Aerial, Combination	4	\$351.00	\$0.00
1	21	Site Preparation, Other, Burn, Hand, Cut-Over	4	\$97.50	\$0.00

Strata	Stand	Activity	Acre	Est. Cost	Est. Revenue
1	21	Regeneration, Artificial, Plant, Hand, Loblolly	4	\$331.50	\$0.00
1	29	Site Preparation, Chemical, Broadcast, Aerial, Combination	8	\$699.30	\$0.00
1	29	Site Preparation, Other, Burn, Hand, Cut-Over	8	\$194.25	\$0.00
1	29	Regeneration, Artificial, Plant, Hand, Loblolly	8	\$660.45	\$0.00
1	35	Site Preparation, Chemical, Broadcast, Aerial, Combination	17	\$1,542.60	\$0.00
1	35	Site Preparation, Other, Burn, Hand, Cut-Over	17	\$428.50	\$0.00
1	35	Regeneration, Artificial, Plant, Hand, Loblolly	17	\$1,456.90	\$0.00
1	43	Site Preparation, Chemical, Broadcast, Aerial, Combination	3	\$259.20	\$0.00
1	43	Site Preparation, Other, Burn, Hand, Cut-Over	3	\$72.00	\$0.00
1	43	Regeneration, Artificial, Plant, Hand, Loblolly	3	\$244.80	\$0.00
1	45	Site Preparation, Other, Burn, Hand, Cut-Over	7	\$169.25	\$0.00
1	45	Regeneration, Artificial, Plant, Hand, Loblolly	7	\$575.45	\$0.00
1	45	Site Preparation, Chemical, Broadcast, Aerial, Combination	7	\$609.30	\$0.00
1	46	Site Preparation, Chemical, Broadcast, Aerial, Combination	5	\$479.70	\$0.00
1	46	Site Preparation, Other, Burn, Hand, Cut-Over	5	\$133.25	\$0.00
1	46	Regeneration, Artificial, Plant, Hand, Loblolly	5	\$453.05	\$0.00
1	52	Regeneration, Artificial, Plant, Hand, Loblolly	194	\$16,524.85	\$0.00
1	52	Site Preparation, Chemical, Broadcast, Aerial, Combination	194	\$17,496.90	\$0.00
1	52	Site Preparation, Other, Burn, Hand, Cut-Over	194	\$4,860.25	\$0.00
		Yearly Totals	784	\$52,256.00	\$0.00
		Grand Totals	1.741	\$104,665.45	\$663.960.15